UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,717,242 B2
APPLICATION NO. : 09/785194
DATED : April 6, 2004
INVENTOR(S) : Shinji Takeda et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Please delete all of the claims, numbered 1-6, from column 16, line 56 to column 18, line 16, and replace them with the following claims 1-41:

1. A process for fabricating a semiconductor device, comprising the step of:
bonding a semiconductor device to a support with an organic die-bonding film at conditions of temperature of 100-250°C and pressure of 0.1-30 gf/mm^2 to produce a bonded chip wherein the organic die-bonding film has a peel strength of 0.5 kgf/(5mm x 5mm chip) or higher.

2. A process according to claim 1, further comprising the step of:
encapsulating the bonded chip to produce the semiconductor device.

3. A process according to claim 1, wherein said step of bonding comprises bonding with an organic die-bonding film having a modulus of elasticity of 10 Mpa or less at a temperature of 250°C.

4. A process according to claim 3, wherein said step of bonding comprises bonding with an organic die-bonding film further having a water absorption of 1.5% by volume or less.

5. A process according to claim 4, wherein said step of bonding comprises bonding with an organic die-bonding film further having a residual volatile component in an amount of not more than 3.0% by weight.

6. A process according to claim 5, wherein said step of bonding comprises bonding with an organic die-bonding film further having a saturation moisture absorption of 1.0% by volume or less.

7. A process according to claim 6, wherein said step of bonding comprises bonding with an organic die-bonding film further having a void volume of 10% or less in terms of voids present in the material of the film, and at an interface between said film and said support at a stage where the semiconductor has been bonded to said support by said film.

8. A process according to claim 7, further comprising the step of:
encapsulating the bonded chip to produce the semiconductor device.

9. A process according to claim 1, wherein said die-bonding material is a film comprising one or more resins selected from the group consisting of silicone resin, acrylic resin, polyimide resin and epoxy resin.

10. A process according to claim 7, wherein said die-bonding material is a film comprising one or more resins selected from the group consisting of silicone resin, acrylic resin, polyimide resin and epoxy resin.

11. A process according to claim 8, wherein said die-bonding material is a film comprising one or more resins selected from the group consisting of silicone resin, acrylic resin, polyimide resin and epoxy resin.

12. A process according to claim 1, wherein said die-bonding material is a film comprising a polyimide resin and epoxy resin.

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[continued from page 1]

13. A process according to claim 7, wherein said die-bonding material is a film comprising a polyimide resin and epoxy resin.

14. A process according to claim 8, wherein said die-bonding material is a film comprising a polyimide resin and epoxy resin.

15. A process according to claim 1, wherein said die-bonding material is a film comprising an acrylic resin and epoxy resin.

16. A process according to claim 7, wherein said die-bonding material is a film comprising an acrylic resin and epoxy resin.

17. A process according to claim 8, wherein said die-bonding material is a film comprising an acrylic resin and epoxy resin.

18. A process according to claim 1, wherein said die-bonding material is a film comprising a silicone resin.

19. A process according to claim 7, wherein said die-bonding material is a film comprising a silicone resin.

20. A process according to claim 8, wherein said die-bonding material is a film comprising a silicone resin.

21. A process according to claim 1, wherein said die-bonding material is a film comprising a silicone resin and epoxy resin.

22. A process according to claim 7, wherein said die-bonding material is a film comprising a silicone resin and epoxy resin.

23. A process according to claim 8, wherein said die-bonding material is a film comprising a silicone resin and epoxy resin.

24. 'A process according to claim 12, wherein the polyimide is a polyimide synthesized from a combination which is selected f consisting of a combination of 1,2-(ethylene)bis(trimellitate anhydride) and bis(4-amino-3,5-dimethylphenyl)methane; a combi (ethylene)bis(trimellitate anhydride) and 4,4'-diaminodiphenylether; a combination of 1,2,-(ethylene)bis(trimellitate anhydride) amino-3,5-diisopropylphenyl) methane; a combination of 1,2-(ethylene)bis(trimellitate anhydride) and 2,2-bis[4-(4-aminophenoxy)phenyl]propane; a combination of a mixture of 1,2-(ethylene)bis (trimellitate anhydride) and 1,10-(decamethylene)bis(trimellitate anhydride) being the same mol as the mixture and 2,2-bis[4-(4-aminophenoxy)phenyl]propane; combination of 1,10-(decamethylene)bis(trimellitate anhydride) and 2,2-bis[4-(4-aminophenoxy) phenyl]propane.

25. A process according to claim 1, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 2 seconds.

26. A process according to claim 7, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 2 seconds.

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[continued from page 2]

27. A process according to claim 8, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 2 seconds.

28. A process according to claim 1, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 1.5 seconds.

29. A process according to claim 7, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 1.5 seconds.

30. A process according to claim 8, wherein said step of bonding is carried out with a bonding time of from 0.1 seconds (inclusive) to 1.5 seconds.

31. A process according to claim 1, wherein said step of bonding is carried out at a pressure of 0.1-4 gf/mm^2.

32. A process according to claim 7, wherein said step of bonding is carried out at a pressure of 0.1-4 gf/mm^2.

33. A process according to claim 8, wherein said step of bonding is carried out at a pressure of 0.1-4 gf/mm^2.

34. A process according to claim 25, wherein said step of bonding is carried out at a pressure of 0.1-4 gf/mm^2.

35. A process according to claim 28, wherein said step of bonding is carried out at a pressure of 0.1-4 gf/mm^2.

36. A process according to claim 1, wherein said step of bonding is carried out at a pressure of 0.3-2 gf/mm^2.

37. A process according to claim 7, wherein said step of bonding is carried out at a pressure of 0.3-2 gf/mm^2.

38. A process according to claim 8, wherein said step of bonding is carried out at a pressure of 0.3-2 gf/mm^2.

39. A process according to claim 25, wherein said step of bonding is carried out at a pressure of 0.3-2 gf/mm^2.

40. A process according to claim 28, wherein said step of bonding is carried out at a pressure of 0.3-2 gf/mm^2.

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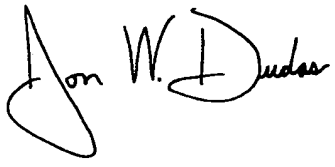
[continued from page 3]

41. A semiconductor device made by the process of claim 1.

Signed and Sealed this

Nineteenth Day of September, 2006



JON W. DUDAS
Director of the United States Patent and Trademark Office